

## CLAIMS

What is claimed is:

1. An image-enabled, financial transaction processing system for use at a point of presentment, comprising:

an input receptive of an image of a physical item at least partially embodying a financial transaction, wherein the image contains a visual record of an amount of monetary value;

an image recognition module adapted to extract the amount of monetary value recorded in the image and recognize the amount using character recognition;

a validation module adapted to determine whether the transaction is valid based on a validation characteristic of an item;

a balancing module adapted to determine whether the transaction is balanced based on the amount of monetary value; and

an output adapted to transmit information indicating whether the transaction is at least one of balanced and valid.

2. The system of claim 1, wherein said input is receptive of information in a non-image format that includes said validation characteristic.

3. The system of claim 1, wherein the validation characteristic is visually recorded in the image, and said image recognition module is adapted to extract the validation characteristic recorded in the image.

4. The system of claim 3, wherein the validation characteristic corresponds to at least one of a routing number and an account number, and said image recognition module is adapted to recognize the validation characteristic using character recognition.

5. The system of claim 3, wherein the validation characteristic corresponds to a signature of a party to the transaction, the system further comprising a biometric analysis module adapted to perform a similarity alignment between the signature and a signature stored in memory.

6. The system of claim 3, wherein the validation characteristic corresponds to a digital watermark.

7. The system of claim 1, wherein said input is further receptive of an electronic substitute cash ticket having an amount of monetary value associated therewith, and said balancing module is further adapted to determine whether the transaction is balanced based on the amount of monetary value associated with the substitute cash ticket.

8. The system of claim 1, wherein said input is receptive of multiple images of multiple physical items embodying the transaction, wherein one image is of an item representative of the transaction as a whole, and said balancing module is adapted to compare totals of amounts extracted from image of items to totals of amounts visually recorded in the image of the item representative of the transaction as a whole.

9. The system of claim 1, wherein said balancing module is adapted to generate an electronic version of the transaction, said output is adapted to transmit the electronic version, said input is receptive of supplemental information assistive in at least one of balancing and validating the transaction, and said balancing module is adapted to balance the transaction based on the supplemental information.

10. The system of claim 1, wherein said output is adapted to transmit an electronic version of the transaction including the images.

11. The system of claim 10, wherein the electronic version of the transaction includes metadata marking the transaction as a truncated transaction.

12. An image-enabled item processing method for use in performing a financial transaction at a point of presentment, comprising:

initiating communication with a party to a transaction at a point of presentment of physical items embodying the transaction, wherein at least one physical item has an amount of monetary value visually recorded thereon;

reading item images into computer memory by generating an image record of each of the physical items and storing the image records in computer memory;

validating the transaction by comparing a validation characteristic of at least one item to a validation characteristic stored in computer memory;

recognizing at least one amount of monetary value recorded on the items by extracting amounts from the item images and recognizing extracted amounts;

balancing the transaction based on at least one recognized amount before terminating communication with the customer at the point of presentment; and

posting the transaction, including transmitting the item images to a central location having a relational database storing records of transactions.

13. The method of claim 12, further comprising correcting the transaction before said balancing the transaction.

14. The method of claim 13, wherein said step of correcting the transaction includes correcting misrecognition of an item detail stored computer memory.

15. The method of claim 13, wherein step of correcting the transaction includes:

communicating a need for alteration of an item to the party to the transaction;

reading an altered item image into computer memory; and

reflecting alteration of the item in the transaction.

16. The method of claim 13, wherein said step of correcting the transaction includes:

communicating need for removal of an item to the party to the transaction; and

removing the item from the transaction.

17. The method of claim 13, wherein said step of correcting the transaction includes:

requesting at least one additional item from the party to the transaction;

reading an additional item image into computer; and

adding the additional item image to an electronic version of the transaction.

18. The method of claim 13, wherein said step of correcting the transaction includes:

communicating invalidity of an item to the party to the transaction at the point of presentment; and

removing the invalid item from the transaction.

19. The method of claim 13, wherein said step of correcting the transaction include:

reading an item image into computer memory a second time; and

replacing a first instance of the item image in computer memory with a second instance of the item image.

20. The method of claim 12, further comprising:  
creating a substitute cash ticket image; and  
adding the substitute cash ticket image to an electronic version of  
the transaction.

21. The method of claim 12, further comprising tagging an item image  
with metadata identifying the item image as truncated.

22. The method of claim 12, further comprising employing centralized  
business rules specifying validation and recognition procedures that are  
promulgated by a user from a central location to remote locations affording points  
of presentment.

23. The method of claim 12, wherein said step of validating the  
transaction includes comparing a code line of an item to a plurality of code lines  
of financial institutions prior to said balancing the transaction.

24. The method of claim 12, wherein said step of validating the transaction includes:

identifying a party to the transaction associated with a selected one of the physical items;

extracting a signature of the party to the transaction from an item image related to the selected one of the physical items; and

comparing the signature extracted from the item image to a signature of the party to the transaction stored in computer memory.

25. The method of claim 12, further comprising:

attempting to recognize a party to the transaction identity and a total transaction amount based on an image of a deposit slip of the transaction;

attempting to recognize check amounts based on images of checks of the transaction, wherein at least one attempt is governed at least in part by a code line of an associated check;

partially filling an electronic form representing the transaction based on successful recognition attempts; and

completely filling the electronic form based on input from at least one of the party to the transaction and a teller at the point of presentment in communication with the party to the transaction.



26. The method of claim 25, further comprising prompting at least one of the party to the transaction and the teller at the point of presentment for input in the case of a failed recognition attempt.

27. The method of claim 25, further comprising:  
making a comparison between a total amount of the electronic form and a summation of transaction item amounts present in the electronic form; and  
informing at least one of the party to the transaction and the teller at the point of presentment of results of the comparison.

28. The method of claim 25, wherein said step of posting the transaction includes storing the item images in computer memory in association with the electronic form.